

Müller; color very pale; sculpture weak, consisting of fine lines of growth crossing the whorls somewhat obliquely, the more distinct ones on the last whorl occurring at rather regular intervals, some 55 micromillimeters apart. Diameter of last whorl about three times that of penultimate ones.

Hab.—Oligocene beds at Florissant, Colorado, collected by Judge J. Henderson and Dr. F. Ramalley, of the University of Colorado, 1905. The exact locality is southwest of Florissant, in plant-bearing beds, containing among other things *Flanera longifolia*, Lx. On the same slab as the *Planorbis* is a small *Sphaerium*, badly crushed and broken. The *Planorbis* is not very well preserved, but I believe that it will be readily recognized from the above description. Of the species belonging to the same geological period, it is most like *P. æqualis* White, from Wyoming; but that species appears to be more convex, and, with the same number of whorls, is at least twice as large. I take it that *P. florissantensis* is a *Gyraulus*, which *P. æqualis* does not seem to be. It is rather curious that several of the fossil species of *Planorbis* found in America remind one rather of European forms, than of those living in this country to-day.* Possibly the dominant *Planorbis* of modern America may represent in part an invasion from the south, which has displaced some of the older types.

Scudder (Tertiary Insects of N. America, p. 31), mentions a *Planorbis* from Florissant, probably the species now described.

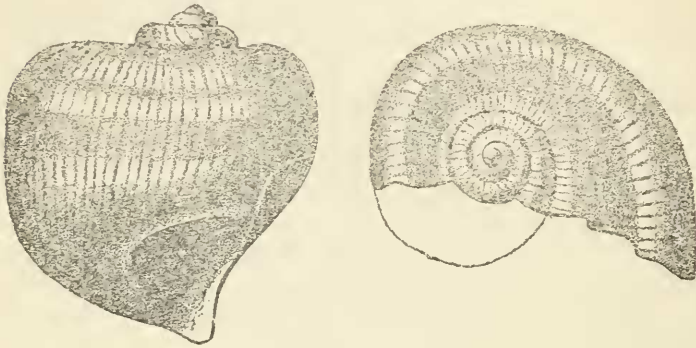
AN ORDOVICIAN GASTROPOD RETAINING COLOR MARKINGS.

BY PERCY E. RAYMOND.

While examining some small fossils collected in the Chazy, (lower Ordovician), limestone at Valcour Island, New York, the writer was surprised to find two small specimens of *Straparollina harpa* Hudson, which retain with remarkable distinctness the lines of color markings and possibly some trace of the original colors. The specimens are very small, the larger being less than one quarter of an inch in diameter. The body color of the shells is a light yellow, which is the prevailing color of the fossils in the particular stratum from which these specimens were taken. Around the top of the body-whorl, ad-

* Thus, *P. cirratus* White is extremely suggestive of *P. vortex* and *P. spirorbis*; other species recall *P. contortus*.

joining the suture, is a narrow, brownish gray band. Below it is a band of the yellow body color, and then, about the middle of the whorl, another brownish-gray band, more deeply colored than the one on the top of the whorl. Below this principal band is another light yellow band, and adjoining the umbilicus, the color is orange. The position of these bands is shown on the accompanying figures.



Straparollina harpa Hudson, $\times 10$.

The yellow color is undoubtedly due to the iron of the decomposed limestone from which the fossils were obtained, but the brown tints may give some hint of the original coloring of the revolving bands.

These are probably the oldest shells on which color markings have been observed, dating as they do, from Middle Chazy times, (*Maclurites magna* fauna). The oldest instances of color preservation previously recorded in America are those reported by Professor O. C. Marsh, and Dr. Theodore G. White. Professor Marsh described (Proc. Am. Assoc. Adv. Sci. xvi, p. 326, 1868) certain markings on the shell of a specimen of *Endoceras* (*Cameroceras*) *proteiforme* Hall from the Trenton formation in New York. Dr. White mentions (Trans. N. Y. Acad. Sci. vol. xv, p. 85, 1896) two specimens of *Holopea symmetrica* Hall from the Black River formation of the Rathbone Brook, N. Y., section, which preserved the original shell material, and one showed the iridescent lustre of pearl.

Quite a number of cases of color preservation have been recorded from the Devonian and Carboniferous, but examples from the older formations are exceedingly rare.

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